

DISCUSSION OF THE AMENDMENT

Due to the length of the specification herein, Applicants will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2004/0089960, when discussing the application description, both in this section and in the Remarks section, *infra*, rather than to page and line of the specification as filed.

Claims 18 and 36 have been amended by adding degree of polarization and dichroic ratio limitations, as supported by Example 3, which describes a degree of polarization of 99.97% and a dichroic ratio of 64, as described in the specification at paragraph [0055], together with Examples 1 and 2, each of which describes a higher degree of polarization and a higher dichroic ratio; by changing conditions (2) and (3) to the values recited prior to the previous amendment; and by changing “that” to the more grammatically correct --which--. Claim 37 has been amended to be dependent on Claim 36.

New Claims 40-46 have been added. Claims 40-42 are supported by Claims 18, 36 and 37, respectively, prior to the present amendment. Claims 43-45 are supported in the specification at paragraph [0018]. Claim 46 is supported by Example 3, as described in the specification at paragraph [0054], together with Examples 1 and 2, each of which describes a higher B, and Example 4, which describes a higher C.

No new matter is believed to have been added by the above amendment. Claims 18, 20, 21, 24-34, 36, 37 and 39-46 are now pending in the application.

REMARKS

Applicants thank the Examiner for the courtesy extended to Applicants' attorney during the interview held April 1, 2009, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art. The discussion is summarized and expanded upon below.

The rejection of Claims 18, 20, 21, 24-34, 36, 37 and 39 under 35 USC 103(a) as obvious over US 4,591,512 (Racich et al) in view of US 2002/0001700 (Sanefuji et al), is respectfully traversed.

As described in the specification at paragraph [0005], in general, polarizing films have been prepared by monoaxially stretching and coloring a polyvinyl alcohol (PVA) film with iodine or dichroic dye, or coloring and then monoaxially stretching it, followed by treating it with a boron compound for fixation. Indeed, and as Applicants' attorney pointed out during the above-referenced interview, this is, in effect, the invention disclosed by Racich et al, although Racich et al includes a zinc salt in their borating solution (column 1, lines 50-58 and Claim 1). As described in the specification at paragraph [0006], with the development of large-sized screens in liquid crystal monitors and liquid-crystal televisions, polarizing films are now required that are wider than conventional ones. With such larger polarizing films required comes new problems and new additional requirements, as described. Mid-1980s technology, like that disclosed in Racich et al, cannot possibly recognize problems that had not yet developed at that time.

Racich et al discloses that their sheet of PVA can be uniaxially stretched by techniques which are known in the art (column 2, lines 26-27). With regard to stretching in their borating solution, Racich et al discloses that it is stretched by about 30% to about 100% of its dimension prior to entering the solution, depending in part upon the extent of the initial

stretching, and where the sheet was initially stretched, i.e., dry stretched, about 3.6 times its normal dimension, it is typically stretched by about 35% to about 50%, preferably about 40%, of its dimension prior to entering the solution (column 3, lines 53-65). Racich et al continues that generally, it is preferable to make a polarizer material which is stretched in total from about 5 to about 5½ times the initial dimension of the PVA sheet, and that a polarizer material having optimal polarizing properties is made by stretching the sheet as much as possible without breaking it (column 4, lines 8-13).

Thus, at least in terms of polarizing films of the size disclosed by Racich et al, i.e., on the order of 432 mm (column 5, line 10), or 0.432 m, the only relevant disclosure with regard to optimizing polarizing properties is simply stretching the sheet as much as possible without breaking it, as discussed above. This disclosure goes to the drawing ratio only, as noted by Applicants' attorney during the interview. In addition, and as Applicants' attorney explained during the interview, there is no recognition or appreciation in Racich et al that any of conditions (1), (2) and/or (3) are result-effective variables. If any of these conditions were known in the prior art to be result-effective variables, the burden is on the Examiner to provide evidence. In the absence of such evidence, it must be assumed that since these conditions are not known to be result-effective variables, it is not obvious to optimize them, despite the Examiner's finding that it would have been so obvious. Moreover, the Examiner's reliance on Applicants' disclosure that the upper limit on A/B is not critical, but merely that ratios above 3 should be avoided, is improper, since this **Applicants'** contribution, not that of the prior art. Compare *In re Ruff*, 256 F.2d 590, 118 USPQ 340, 347 (CCPA 1958) (**copy enclosed**) ("To rely on an equivalence *known only to the applicant* to establish obviousness is to assume that his disclosure is a part of the prior art. The mere statement of this proposition reveals its fallaciousness.")

In addition, the specification herein contains comparative data demonstrating the superiority of the present invention. Examples 1-4 are according to the present invention; Comparative Examples 1 and 2 are for purposes of comparison. In Comparative Example 1, A/B was 0.4 min, or below the presently-recited minimum of 0.5 min. In Comparative Example 2, A was 4 m, or below the presently-recited minimum of 5 m. Yet the degree of polarization for Comparative Examples 1 and 2 was 99.8% and 99.7%, respectively, which is significantly below the presently-recited minimum of 99.97%. Thus, the present claims are patentable under the rationale of *In re Antonie*, 559 F.2d 618, 195 USPQ 6, 8-9 (CCPA 1977) (**copy enclosed**) (exceptions to rule that optimization of a result-effective variable is obvious, such as where the results of optimizing the variable are unexpectedly good or where the variable was not recognized to be result effective). Applicants are entitled to prevail under either of the above exceptions.

Note further that the Comparative Examples are closer than any prior art relied on. Compare *Ex parte Humber*, 217 USPQ 265 (Bd. Pat. App. & Inter. 1981) (**copy enclosed**) (comparative data showing the claimed chlorine-containing compounds to be unexpected over various (non-prior art) chlorine-containing isomers was accepted as more probative over prior art, drawn to non-chlorine containing analogs of the claimed compounds, asserted to be closest.)

Sanefuji et al, which was cited as an “A” prior art reference in the European Search Report for the corresponding European Patent Application (EP 1154290 is from the same patent family as Sanefuji et al), does not remedy any of the above-discussed deficiencies in Racich et al. While Sanefuji et al is concerned with PVA film-based polarizing films having a width of at least 2 m [0011], Sanefuji et al is concerned with a different problem faced by Racich et al and a different problem faced by Applicants herein. Rather, Sanefuji et al is concerned with local streaks caused by thickness irregularities occurring on a film over an

area of a length within 1 mm during the production of the PVA film [0004]-[0008]. Sanefuji et al does not recognize the significance of any of conditions (1), (2) or (3) of the present claims. Thus, in effect, Sanefuji et al is irrelevant herein.

New Claim 46 is separately patentable, since the combined prior art neither discloses nor suggests such relatively **high speed** production of such relatively **wide** polarizing films as reflected by this claim.

For all the above reasons, it is respectfully requested that the rejection be withdrawn.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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